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AMSAT NEWS SERVICE
ANS-257

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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SB SAT @ AMSAT $ANS-257.01
ANS-257 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 257.01
 >From AMSAT HQ KENSINGTON, MD.
DATE September 14, 2014
To All RADIO AMATEURS
BID: $ANS-257.01

BOD Ballots Must be Received by September 15

There is still time to vote but remember that Board of Directors ballots must be received at the AMSAT Office by 15 SEP 2014 in order to be counted. Your returned ballot should be sent promptly, and those from outside North American preferably by air mail or other expedited means.

Normally there would be 3 full Board seats open this year, plus 2 alternates. However, with the passing of Tony Monteiro, AA2TX (SK), there will be an additional full Board seat open to fill the remainder of his term. This means that the top three recipients of votes will have two-year terms, the fourth most vote recipient

serving as full member for one year. The fifth and sixth highest vote recipients will serve as first and second Alternate, respectively. You may vote for up to 4 individuals.

Election of board members is both an obligation as well as an opportunity by our membership to help shape the future direction of AMSAT-NA. Please take the time to review the candidate statements that accompany the ballot and determine who you wish to see on the Board.

[ANS thanks the AMSAT Office for the above information]

ISS SSTV received on SUWS WebSDR

On Saturday, September 6, at 1000 GMT Paulo PV8DX emailed the news that the International Space Station (ISS) Slow Scan Television (SSTV) on 145.800 MHz FM had been active again.

At the end of the passage (ISS) in northern Brazil where I live. I heard the sound of early SSTV. So I went to the WEBSDR in your area [the SUWS WebSDR near London, UK] and I got two images.

The ISS has been transmitting photographs devoted to the life and work of the first cosmonaut Yuri Gagarin. They were sent in the PD180 SSTV mode with additional voice commentary.

On August 27, 2014 a test of the ISS Slow Scan Television (SSTV) experiment MAI-75 using the Kenwood TM-D710 transceiver and a new cable took place. Although a carrier was successfully transmitted on 145.800 MHz no SSTV audio tones were heard. It appears that the earlier problem has now been rectified.
http://amsat-uk.org/2014/08/23/iss-sstv-august-27/

The Kenwood TM-D710 was delivered to the ISS in the summer of 2012. The original TM-D700 in the Russian ISS Service Module had been experiencing problems with the PA after giving many years service in space, see ARISS minutes for March 2013. It is thought the Kenwood TM-D710 is set to run at just 5 watts output because convection cooling doesn’t work in zero gravity.
http://www.ariss.org/meeting-minutes/archives/03-2013

David Barber G8OQW received some good images in Chelmsford, Essex which can be seen on the AMSAT-UK Facebook page.

Listen to the ISS and amateur radio satellites online using the SUWS VHF/UHF/Microwave WebSDR
http://amsat-uk.org/2014/08/15/suws-websdr-moves-to-new-site/

ISS Fan Club provides status and tracking information
http://issfanclub.com/

How to hear the ISS
http://amsat-uk.org/beginners/how-to-hear-the-iss/

Paul Turner G4IJE, co-developer of the SSTV PD modes, says regarding the PD180 mode: “Don’t forget to either enable “Always show RX viewer” or use the “Picture viewer” (magnifying glass icon) to show the picture at its real resolution of 640 x 496. If you just view as

normal you will only see 320 x 248 resolution, which kind of defeats the object of using a high resolution mode."

Tony Falla VK3KKP commented "I received a good picture from ISS on my iPad mid-Saturday evening [AEDT] on 145.800 MHz just using the microphone next to the rig."

The APRS digipeater in the European Space Agency ISS Columbus module continued to be in operation on 145.825 MHz during the SSTV transmissions.

All you need to do to receive SSTV pictures direct from the space station is to connect the audio output of a scanner or amateur radio transceiver via a simple interface to the soundcard on a Windows PC or an Apple iOS device, and tune in to 145.800 MHz FM. You can even receive pictures by holding an iPhone next to the radio's loudspeaker.

The ISS puts out a strong signal on 145.800 MHz FM and a 2m handheld with a 1/4 wave antenna will be enough to receive it. The FM transmission uses the 5 kHz deviation which is standard in much of the world.

Many FM rigs can be switched been wide and narrow deviation FM filters. For best results you should select the wider deviation filters. Handhelds all seem to have a single wide filter fitted as standard.

On Windows PC's the free application MMSSTV can be used to decode the signal, on Apple iOS devices you can use the SSTV app. The ISS Fan Club website will show you when the space station is in range.

For more on Slow Scan Television SSTV, see this article SSTV – The Basics
http://www.essexham.co.uk/sstv-the-basics

How to be successful with the ISS Slow Scan Television (SSTV) imaging system
http://www.marexmg.org/fileshtml/howtoissstv.html

Free MMSSTV Slow Scan TV software
http://hamsoft.ca/pages/mmsstv.php

iOS SSTV App
https://itunes.apple.com/gb/app/sstv/id387910013

IZ8BLY Vox Recoder, enables you to record the signals from the ISS on 145.800 MHz while you're away at work
http://antoninoporcino.xoom.it/VoxRecorder/

ARISS Slow Scan TV (SSTV) Blog and Gallery
http://ariss-sstv.blogspot.co.uk/

Information on the MAI-75 SSTV experiment
http://www.energia.ru/eng/iss/researches/education-26.html

[ANS thanks AMSAT-UK for the above information]

Send your message "from the Moon"

The LuxSpace 4M amateur radio payload is expected to fly around the Moon at the end of October and you can upload a message to the 4M website that will be transmitted on 145.980 MHz using JT65B during the flight.

There is room for 2500 messages each up to 13 characters long. Your message could be your name/callsign or “73 de M5AKA”.

During the lunar flyby, the spacecraft will be about 399,636 km from Earth. The LuxSpace team wish to encourage radio amateurs around the world to receive the transmissions and send in data. There will be a number of Experiments and Contests with prizes to the winners in each experiment and category. Details are given on page 19 of 4M Mission: a Lunar FlyBy experiment.

4M stands for Manfred Memorial Moon Mission in memory of Professor Manfred Fuchs, founder and chairman of OHB group, Bremen, who passed away on April 27, 2014.

Register and Upload your message at
http://moon.luxspace.lu/messages/

4M Mission: a Lunar FlyBy experiment
https://ukamsat.files.wordpress.com/2014/09/lxs-4m-eme2014-a4-v3.pdf

Further information on this project is at
http://amsat-uk.org/2014/09/01/4m-lunar-payload/

[ANS thanks AMSAT-UK for the above information]

Contract to Build Es’hailSat Includes AMSAT-DL Phase 4 Transponders

Gunter Krebs reports on his Space Pages on the web that Es'hailSat has signed a contract with MELCO to build the Es'hail-2 geostationary comsat.

Es'hail 2 is a planned communication satellite operated by Es’hailSat, the Qatar Satellite Company. It will also feature an radio amateur payload.

The new satellite will be positioned at the 26° East hotspot position for TV broadcasting and significantly adds to the company’s ability to provide high quality, premium DTH television content across the Middle East and North Africa. It will feature Ku-band and Ka-band transponders to provide TV distribution and government services to strategic stakeholders and commercial customers who value broadcasting and communications independence, interference resilience, quality of service and wide geographical coverage. Es’hail 2 is expected to be launched at the end of 2016.

In September 2014, a contract with MELCO was signed to build the satellite based on the DS-2000 bus.

Es'hail 2 will also provide the first Amateur Radio geostationary communication capability linking Brazil and India. It will carry two "Phase 4" Amateur Radio transponders. The payload will consist of a

250 kHz linear transponder intended for conventional analogue operations in addition to another transponder which will have an 8 MHz bandwidth. The latter transponder is intended for experimental digital modulation schemes and DVB amateur television. The uplinks will be in the 2.400-2.450 GHz and the downlinks in the 10.450-10.500 GHz amateur satellite service allocations.
Both transponders will have broad beam antennas to provide full coverage over about third of the earth's surface. The Qatar Amateur Radio Society andQatar Satellite Company are cooperating on the amateur radio project.
AMSAT-DL is providing technical support to the project.

This story is posted at:
http://space.skyrocket.de/doc_sdat/eshail-2.htm

[ANS thanks Gunter's Space Pages for the above information]

Chicago Media Coverage St. Joan of Arc School ARISS Contact

Here is a link to local Chicagoland coverage of the St. Joan of Arc ARISS contact:

http://chicago.cbslocal.com/2014/09/08/students-at-lisle-school-chat-with-astronaut-aboard-international-space-station

[ANS thanks AMSAT-NA for the above information]

AMSAT Events

Information about AMSAT activities at other important events around the country. Examples of these events are radio club meetings where AMSAT Area Coordinators give presentations, demonstrations of working amateur satellites, and hamfests with an AMSAT presence (a table with AMSAT literature and merchandise, sometimes also with presentations, forums, and/or demonstrations).

* Friday through Sunday, 12-14 September 2014 – ARRL Southwestern Division Convention 2014 in San Diego CA (near Montgomery Field and I-805/CA-163 interchange)
* Sunday, 25 October 2014 – Hamfest Chattanooga 2014 in Chattanooga TN (Alhambra Center, near TN-320 and I-75 exit 3)
* Saturday, 8 November 2014 – Tucson Hamfest 2014 in Marana AZ (along I-10 west frontage road, east of exit 236)
* Saturday, 6 December 2014 – Superstition Superfest 2014 in Mesa AZ (Mesa Community College, Dobson Road between Southern Avenue & US-60 exit 177)
* Saturday, 10 January 2015 – Thunderbird Hamfest in Phoenix AZ (43rd Avenue, between Greenway and Bell Roads)
* Friday and Saturday, 20-21 February 2015 – Yuma Hamfest in Yuma AZ (Yuma County Fairgrounds, 32nd Street between Pacific Avenue & Avenue 3E, south of I-8 exit 3)

[ANS thanks AMSAT-NA for the above information]

ARISS News

Upcoming Contacts

* A direct contact via 4U1ITU with students at Institut Florimont, Petit-Lancy, Switzerland is scheduled for Wed 2014-09-17 08:17:28 UTC 88 deg.

To celebrate ESA’s 50th anniversary, an audience comprised of students from several countries will gather in the International Conference Centre Geneva (CICG).

The nearby ITU (International Telecommunications Union) Headquarters hosts the amateur radio station 4U1ITU. This ARISS contact will be operated by the station’s trustee Attila Matas (HB9IAJ / OM1AM).

About 20 VIPs will be present in the 4U1ITU radio room (the “shack” in Ham parlance). Via a video link, the audience in the CICG will participate in the event.

Latest News

* September 9, 2014

A direct contact with students at Lanier Middle School and Lanier Cluster Schools in Sugar Hill, GA, USA via W4GR was successful at 11:16:25 UTC 83 deg.

Read and listen to a local media report about the contact:

http://www.gwinnettdailypost.com/news/2014/sep/09/radio-contact-allows-lanier-students-to-talk-with/

Welcome to the Lanier Cluster, home of the Longhorns! We are a group of schools with a common goal: Learn, Lead, Succeed. We are comprised of one special needs preschool (The Buice School), three elementary schools (Sugar Hill Elementary, Sycamore Elementary, White Oak Elementary), one middle school (Lanier Middle), and one high school (Lanier High). Our schools are located in the greater Atlanta metro area in the largest school district in Georgia. Our schools and cluster are named after nearby Lake Lanier, which part of the Chattahoochee River system.

Our schools strive to create authentic learning environments for our students. Towards that end, our elementary schools, Lanier Middle, and Lanier High have project based learning programs for students. At Lanier High, students choose to be a part of a school within a school (academy model) as we guide students towards career and college readiness. Lanier High was also recently certified as a Georgia STEM high school, the only all-inclusive, traditional high school in Georgia that has received this STEM certification.

Our students are excited about science and space exploration. They have participated in regional and state science fairs, designed an experiment flown in microgravity, and chatted with a NASA Earth

scientist live on NASA TV. They have presented at conferences, participated in robotics and app challenge events, and even won an Emmy for work on a 3D computer animation for a PBS documentary. The students of Lanier Cluster are excited to be a part of this ARISS contact!

September 8, 2014

A direct contact with students at St. Joan of Arc School, Lisle, IL, USA via K9LEZ was successful at 18:34:45 UTC 84 deg. Students interviewed astronaut Alexander Gerst KF5ONO.

Listen to a local media report:
http://chicago.cbslocal.com/2014/09/08/students-at-lisle-school-chat-with-astronaut-aboard-international-space-station/

St. Joan of Arc Catholic School is located in Lisle, Illinois, a western suburb of Chicago. We are a pre-K to 8th grade school with about 600 students. St. Joan provides an educational environment which grants each student access to the highest quality and richest variety of integrated educational experiences within our means. We are committed to preparing our students to think critically and become confident, sensitive, Christian leaders capable of adapting and contributing to their community. Our school was awarded the National Blue Ribbon Award for Academic Excellence in 2011. Our school was named an IMSA (Illinios Math and Science Academy) Fusion School in 2012. Our school participated in NASA’s microgravity program through the Johnson Space Center in Houston, Texas in 2013. The teachers directly involves in this contact completed the American Radio Relay League’s (ARRL) summer teacher institute program and are working with local radio amateurs to successfully complete this contact and to provide additional opportunities to our classrooms.

September 5, 2014

A direct contact with students in St. Petersburg, Russia was successful 2014-09-05 10:00 UTC. No other details are available at this time.

[ANS thanks ARISS, Keith, W5IU and Charlie, AJ9N for the above information]

Satellite Shorts From All Over

*Patrick Stoddard in October QST

See AMSAT's own, Patrick Stoddard, WD9EWK on page 79 of October's QST. The digital version is available online at http://www.arrl.org

[ANS thanks the ARRL for the above information]

*Share your Experience

There are lots of hamfests that occur every month. Please try to get out and share your experiences. I attended the SFTARC hamfest on

Saturday, September 13, 2014 in Gardner, KS. Randy, KD0HKD, gave a presentation and made a few contacts including one lady's first satellite QSO. My point is that with the new Fox-1 series of satellites being launched next year, the opportunity to welcome new members and operators is increasing. Let's begin attracting new membership by being present.

[ANS thanks Joe, K6WAO for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Joe Spier, K6WAO
k6wao at amsat dot org